

Remarks

Claims 1-60 are pending in the application. All claims stand rejected. By this paper, claims 1-4, 6, 12, 22, 24, 31-34, 36, 42, 52, and 54 have been amended. New claims 61 and 62 have been included to provide claim coverage commensurate with the scope of the invention. No new matter has been added. Reconsideration of all pending claims herein is respectfully requested.

The drawings and specification were objected to because of several reference numbering errors. The applicant has amended the specification and provided two replacement sheets which are believed to address all of the issues raised by the Examiner. Specifically, the paragraph beginning at page 30, line 18, was amended to add the missing reference numeral "1316" and change the incorrectly numbered reference numeral "1314" to "1310." The paragraph beginning at page 31, line 13, was amended to add the missing reference numeral "1324."

In FIG. 2, the reference numeral "215" was changed to "228," and the "Select" button was changed to reference numeral "215" to correspond with the specification. In FIG. 11, the reference numeral "1120" was changed to "1112" to correspond with the specification.

Claims 1, 4, 7-23, 26-30, 31, 34, 37-53, and 56-60 were provisionally rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20, 24-49, 54-60 of co-pending application no. 09/748,080 in view of Wu et al. ("Wu"). Enclosed herewith is a terminal disclaimer that is believed to obviate the double-patenting rejection.

Amendments to the Drawings:

The attached replacement sheets of drawings includes changes to Fig. 2 and
11.

Claims 1, 5-7, 10, 11, 13, 18, 20, 21, 24, 26, 28, 29, 31, 35-37, 40, 41, 43, 48, 50, 51, 54, 56, 58, and 59 were rejected under 35 U.S.C. 102(e) as being anticipated by Wu. Claims 1-4, 7, 9, 11-13, 22, 24, 25, 27, 28, 31-34, 37, 39, 41-43, 52, 54, 57, and 58 were rejected under 35 U.S.C. 102(e) as being anticipated by Dodson et al. ("Dodson"). Claims 1, 7, 10, 14, 15, 22, 23, 31, 37, 40, 44, 45, 52, and 53 were rejected under 35 U.S.C. 102(e) as being anticipated by Wong et al. ("Wong"). Claims 19 and 48 were rejected under 35 U.S.C. 103(a) as being unpatentable over Wu. Claims 8 and 38 were rejected under 35 U.S.C. 103(a) as being unpatentable over Wong. Claims 16, 17, 46, and 47 were rejected under 35 U.S.C. 103(a) as being unpatentable over Wong in view of Mighdoll et al. ("Mighdoll"). Claims 30 and 60 were rejected under 35 U.S.C. 103(a) as being unpatentable over Dodson in view of Reese.

Claim 1 has been amended to more particularly point out and distinctly claim the subject matter of the invention. As amended, claim 1 recites a method for pre-caching an interactive television system with supplemental content related to a television program being displayed by the interactive television system, comprising:

- sensing a change in the television program being displayed by the interactive television system;

- obtaining contextual information pertaining to the television program;

- automatically sending an information request to a content source for supplemental content related to the television program prior to receiving a subsequent user request for such supplemental content, the information request comprising the contextual information;

- in response to the content source identifying any supplemental content related to the television program being displayed based upon the contextual information, retrieving the supplemental content from the content source; and

pre-caching the retrieved supplemental content in the interactive television system for display in response to the subsequent user request.

These features allow supplemental content to be immediately available when requested by a user because it has been pre-cached within the interactive television system prior to a subsequent user request. The interactive television system automatically retrieves supplemental content from remote sources based on context information (e.g., time indices, closed-captioning information, etc.) without knowing whether the user will actually request the content. As a result, the user does not need to wait while the system locates and downloads the supplemental content. This is particularly advantageous for rich content, such as video, which might take several minutes to download. Using the techniques of the claimed invention, the system may begin to download and pre-cache video content immediately upon detecting a change in the television program being watched (e.g., when the channel is changed), so it will always be available when requested.

By contrast, the references cited by the Examiner do not disclose automatic pre-caching of supplemental content. Wu, for example, relates to “a method and apparatus for automatically accessing and displaying a predetermined Web page associated with a currently selected television programming segment.” Col. 2, lines 20-22. Wu does not, however, disclose pre-caching the Web page in anticipation of a subsequent request, as required by amended claim 1. Rather, Wu automatically displays the predetermined Web page. Thus, Wu totally fails to address the applicants’ problem of making content immediately available upon a user request by pre-caching it locally within the interactive television system.

With regard to Dodson, the Examiner admits in the Office Action that contextual information pertaining to the television program is obtained upon “a user-initiated search.” Office Action, page 9. Accordingly, the supplemental content is not automatically requested prior to receiving a user request for such supplemental content, as recited in amended claim 1. Indeed, the search for supplemental content occurs at the time of the user request, and the user may be forced to wait for the system to not only find but download the requested content. Thus, Dodson actually teaches away from pre-caching.

Likewise, Wong does not relate to pre-caching of supplemental content. At best, Wong retrieves and displays links to supplemental content (URLs), not the supplemental content itself. Col. 3, lines 45-55. There is no teaching or suggestion in Wong of automatically retrieving supplemental content, such as video clips, images, etc., and pre-caching that supplemental content within the interactive television system for display in response to a subsequent user request. For example, if a user desires to watch a particular video clip, the user must click on a displayed link and wait while the clip is downloaded before it can be displayed. No pre-caching of supplemental content is involved.

The applicant respectfully submits, therefore, that claim 1, as amended, is patentably distinct over the cited references, alone or in combination. Claims 2-30 depend directly or indirectly from claim 1 and are likewise believed to be patentably distinct for at least the same reasons. Independent claim 31 has been amended to include similar limitations. Accordingly, claim 31, as well as dependent claims 32-60 are also believed to be patentably distinct.

As amended, claim 24 and 54 recite filtering the supplemental content according to a set of “user preferences for determining which supplemental content is to be pre-cached prior to receiving the user request.” None of the cited references, alone or in combination, disclose user preferences for determining which supplemental content to pre-cache prior to a user request. The Examiner refers to FIGs. 4 and 5 of Dodson for filtering based on user preferences. However, as noted above, Dodson relates to displaying information in response to a user-initiated search. For example, FIG. 4 clearly shows that the filtering is being performed on a “list of hits based on search terms.” Thus, the filtering is occurring after the user request, and not before, as claimed.

Claims 27 and 57 recite that one user preference indicates a type of supplemental content to exclude (from pre-caching). According to the Examiner, Dodson teaches this limitation “in the form of user submitted keywords or search terms which further serve to ‘indicate a type of supplemental content to exclude’ or those documents that do not comprise the associated keywords.” Office Action, page 11. However, this proves the fact that Dodson’s filtering is being done in conjunction with the user request (e.g., submitted keywords), not prior to the user request, as claimed. None of the other cited references, alone or in combination, disclose user preferences relating to content to exclude from pre-caching.

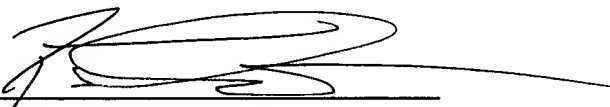
New claim 61 recites the step of periodically replacing pre-cached supplemental content according to a replacement algorithm. New claim 62 recites that the replacement algorithm is a least recently used (LRU) algorithm. The applicant respectfully submits that none of the cited references, alone or in

combination, recite replacing pre-cached supplemental content according to any replacement algorithm, let alone an LRU algorithm. Indeed, none of the cited references even disclose pre-caching of supplemental content prior to a user request.

In view of the foregoing, the applicant respectfully submits that claims 1-62, as amended, are patentably distinct over the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

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